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SIMPLOT PHOSPHATES LLC 9401 NORTH HWY. 191 VERNAL, UTAH 84078
(435) 789-7795

October 11, 2016

Mr. Paul B. Baker
Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84116-3154

RE: AMENDED NOI TO REFLECT TAILINGS VEGETATION STUDY RESULTS

Dear Mr. Baker:

Attached is the amended page for the NOI – East Side Expansion Tailings Storage Facility (TSF) Mining and Reclamation Plan in response to the DOGM's request, dated November 16, 2015, requesting that the NOI be updated to include the tailings reclamation treatment scenario that provides the greatest shrub cover as the final Revegetation plan for the tailings facility. Simplot Phosphate LLC (Simplot) retained Golder Associates, Inc. to assist in this study.

Attached are two copies of the amended pages 25-26. Upon DOGM's final approval, both copies will be stamped approved, and one will be returned for Simplot's records.

Form MR-REV-att, Application for Mineral Mine Plan Revision or Amendment, is included with this submittal.

If you have any questions, please feel free to contact me at (435) 781-3348.

Sincerely,

John B. Spencer
Environmental Manager
Simplot Phosphates LLC

Application for Mineral Mine Plan Revision or Amendment

Operator: Simplot Phosphates, LLC

Mine Name: Vernal Phosphate Operations **File Number:** M/047/0007

Provide a detailed listing of all changes to the mining and reclamation plan that will be required as a result of this change. Individually list all maps and drawings that are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise or amend the existing Mining and Reclamation Plan. **Include page, section and drawing numbers as part of the description.**

DETAILED SCHEDULE OF CHANGES TO THE MINING AND RECLAMATION PLAN

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
☐ ADD	☒ REPLACE	☐ REMOVE	Updated NOI for the mining and reclamation plan – East Side Expansion Replace existing page 25-26 with new page 25-26
☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	
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I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments and obligations, herein.

Mark Krall
Print Name

Mark A. Krall Mine Manager
Sign Name, Position

10/11/16
Date

Return to: State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
Phone: (801) 538-5291
Fax: (801) 359-3940

FOR DOGM USE ONLY:
File #: M/047/0007
Approved: ______________
Bond Adjustment: from $______________
to $______________

2. Extraneous debris, scrap and other unusable materials, incident to mining, are removed from the surface and either sold or dispensed of in an acceptable manner. The mine has a current permit from the Utah Division of Solid and Hazardous Waste for a landfill, Appendix F-1.
3. Warning signs, fences (4-strand barbed wire), berms and other safety items are installed where public safety or welfare might be threatened.
4. Mine safety programs are in accordance with applicable MSHA regulations.

Impacts: Simplot's current west side activities demonstrate that impacts associated with mining on slope stability and erosion control can be minimized through proper reclamation. The same reclamation practices will be implemented for the 10-year mine plan. Therefore, impacts are expected to be minimal. Furthermore, impacts to public health and safety are expected to be minimal, consistent with current operations.

109.5. Actions Proposed to Mitigate Above Referenced Impacts

As described above, impacts are minimized by implementing appropriate BMPs and reclamation practices. These practices are described below in Section R647-4-110. As described above, consultation with Utah SHPO is required to assess mitigation of one cultural resource site that may be impacted by mining activities.

R647-4-110. Reclamation Plan

110.1. Current Land Use and Post-mining Land Use

The major pre-mining land use is private rangeland that provides for livestock and wildlife forage and habitat needs.

Because of the limited topsoil and the low precipitation occurring on the site, a continued range-wildlife use of the private property is the anticipated future land use. Although both livestock use and wildlife use will underlie reclamation efforts, specific areas will focus on certain classes of animals. The reclamation plan incorporates and reflects specific livestock-forage and wildlife-habitat needs to develop as economically as possible an effective re-establishment of land usage.

110.2. Reclamation of Roads, Highwalls, Slopes, Leach Pads, Dumps, Etc.

ROADS

Permanent and temporary roads are necessary for mining operations. **Figures 3a** through **3d** illustrate current road configurations. Access roads to mined-out areas are reclaimed by grading cut and fill section, roughening, and seeding. **Figure 12b** illustrates typical haul road reclamation. During the life of the mine, some access roads will remain so that access to reclaimed areas is ensured for monitoring. Upon completion of mining, open roads, including the main access road, will also be graded, roughened, and seeded. **Figure 13** illustrates baseline conditions for the mine expansion and an overview of reclamation. Included is the location of an access road following reclamation to allow for access to reclaimed areas. This figure also summarizes reclamation activities.

HIGHWALLS AND SLOPES

Simplot conducts concurrent reclamation, where as a pit is mined, it is backfilled with overburden (generally from the next pit). **Figures 12a**, **12b**, and **13** illustrate the mining sequence from mine pit

initiation to reclamation. The filled area is then re-contoured, top soil redistributed to the surface, ground roughened to prepare for seed, and the area seeded. Due to the overall uniformity of the depth and thickness of the ore, depressions and ridges generally reflect the re-graded overburden resulting in an approximate pre-mining contour. In addition, drainage patterns are reconstructed such that upslope and downslope drainages are tied together to the greatest extent as practicable.

As illustrated in **Figures 12a** and **14**, the last pit in a panel, as well as sometimes the adjacent ground on the side of a pit, results in a highwall. It is Simplot's practice is to leave the upper portion of highwalls exposed after mining. Whereas the lower portion of the highwall is filled with overburden to ensure stability. The overall slope of the highwall (crest to toe slope) is less than 45 degrees. In addition, the operator will maintain an adequate factor of safety as determined by a licensed geotechnical engineer. A study and corresponding geotechnical report assessing highwall stability and making recommendations on exposed highwall angle and height will be submitted to DOGM by August 31, 2015. Highwall and slope stability will be monitored on an ongoing basis and stability will be re-evaluated if either the geomechanical properties of the rock or the phreatic surfaces change. Final highwall exposure will not exceed 50 feet in height or be steeper than 65 degrees, until such time as a licensed geotechnical report has been completed. Simplot will leave the highwall in a natural looking roughened state which minimizes hazards. A berm is constructed along the top of the highwall for safety purposes.

Photograph examples of highwalls created on the western portion of the mine site are presented in **Figure14**. Simplot has gained 55 years experience in reclamation on reclaiming, grading, and re-seeding variable angled slopes and highwalls to help reduce erosion problems. As described above, the entire highwall is not backfilled; however, portions of the highwalls are left exposed to blend into the existing landscape and create micro-environments to diversify biology. As illustrated in **Figure 15** and 55 years of mining experience at the site, the remaining exposed highwall is stable.

Wildlife passage corridors are established where practical in the reclamation areas (north/south corridor).

Where drainages cross the highwalls, they are stair-stepped across the upper and lower cliff former - down the overburden, in the final cut. These cliff formers are an erosion resistant limestone as is evident by their natural vertical stance in the area. The drainage channel is filled with large boulders and riprap and the final cut is riprapped where water flows into the cut. The final cut drains toward established drainages. The final cut adds topographic diversity to the area, which is beneficial to wildlife. The highwall is staggered so as not to expose a single unbroken line to view. The highwall blends in with other landscape features in the area.

IMPOUNDMENTS, PITS, AND PONDS

The permitted TSF facility has sufficient capacity to store tailings generated as part of the proposed 10-year mine plan presented in this NOI. Therefore, Simplot is not seeking any changes to the current operations of the TSF facility. Reclamation of the TSF facility will be in accordance with *Notice of Intention to Revise Large Mining Operations Tailings Storage Facility* the dated March 20, 2000. The final treatment for the tailings reclamation is to incorporate organic matter and crimped straw mulch in order to provide the greatest amount of shrub coverage. It is anticipated that the seed mix in the March 20, 2000 document will be updated to reflect DOGM recommended seed mix, but the overall approach described in the document remains valid. Appendix L includes a copy of the *Notice of Intention to Revise Large Mining Operations Tailings Storage Facility* document. Concurrent reclamation of the TSF is primarily limited to the downhill slopes during operations, as reclamation of the pond area is not practical since it is constantly being filled. The TSF will be reclaimed upon closure of mine operations in accordance with a mitigation

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